

A3 ALPHA® Meter as an EnergyAxis® Node



The EnergyAxis System

Elster Electricity's EnergyAxis System is an intelligent, two-way unlicensed 900 MHz radio frequency (RF) network for metering automation. The EnergyAxis System consists of the Metering Automation Server (MAS), REX single phase meters, and A3 ALPHA polyphase meters that act as local data collectors and as nodes for commercial and industrial applications. MAS communicates via a public wide area network (WAN) with the collectors. The collectors communicate with and manage up to 1,024 REX and A3 ALPHA meters within the two-way Elster RF local area network (LAN).

The components of the EnergyAxis System consist of REX and A3 ALPHA meters, making the system deployment as simple as installing a meter. No special equipment is necessary because the meters automatically determine the optimal path to the collector. If network conditions change, the meters automatically find a new communications pathway.

To optimize communications, each meter can serve as a repeater. This creates a robust, mesh communication network while maximizing the communication range of each collector.

A3 ALPHA Meter

Together with the REX single phase meter, the A3 ALPHA meter enables thorough system coverage for residential, commercial, and industrial applications.

The A3 ALPHA meter builds on the patented strengths of Elster's ALPHA meter design. The A3 ALPHA meter uses Elster's patented digital measurement techniques that offer high accuracy, repeatability, and low ownership costs.

The A3 ALPHA meter, as a component of the EnergyAxis System, is equipped with a LAN option board with two-way 900 MHz transmit and receive capability. This option enables the A3 ALPHA meter to act as a node in the EnergyAxis System, which provides two-way communications for collecting meter readings and retrieving on-site voltage reads.

The A3 ALPHA meter may be used for kWh energy measurement, demand, time-of-use (TOU), and critical tier pricing. The A3 ALPHA meter can help lower meter reading costs, provide more accurate readings, and improve customer satisfaction by reducing the likelihood of billing questions due to incorrect readings.

Revenue Metering

The A3 ALPHA meter is a very accurate revenue meter (ANSI C12.20 accuracy Class of 0.2). Existing ALPHA meter users will find the basic A3 ALPHA meter types familiar.

The A3D is available for energy and demand, and the A3T is used for energy and demand where TOU rates are implemented. Each measured quantity is stored in nonvolatile memory and includes energy, demand, and TOU data.

Technology to Empower Utilities



